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Fig. 1

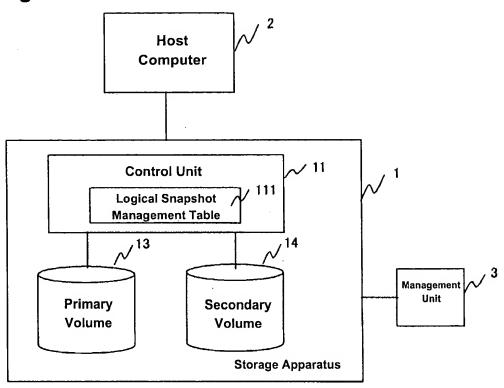
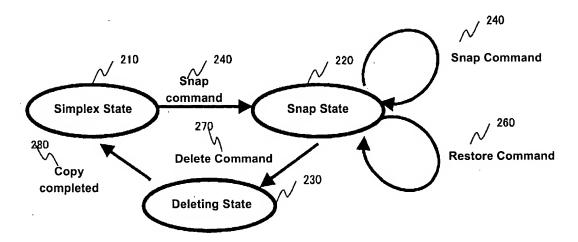
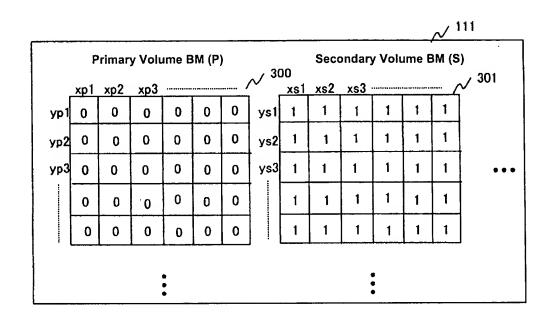


Fig. 2



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Fig. 3



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Fig. 4

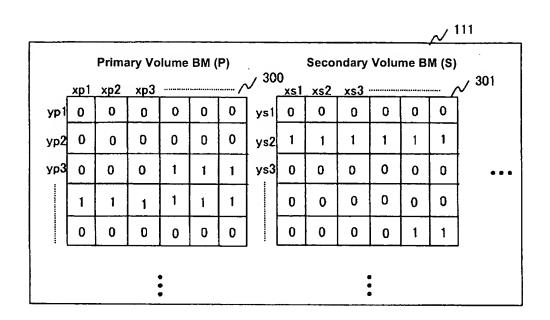
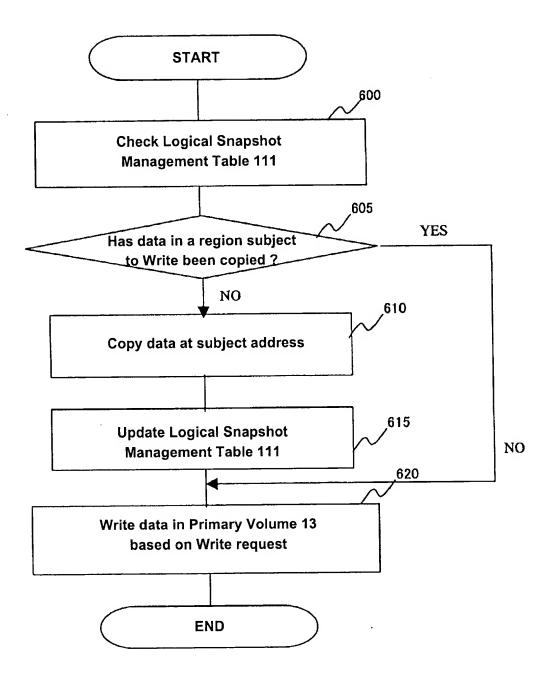


Fig. 5

State before Execution BM (P, S)	Access to Primary Volume		Access to Secondary Volume	
	Read	Write	Read	Write
(0, 0)	(0, 0)	(0, 0)	(0, 0)	(0, 0)
(0, 1)	(0, 1)	(0, 0)	(0, 0)	(0, 0)
(1, 0)	(0, 0)	(0, 0)	(1, 0)	(0, 0)
(1, 1)	N/A			

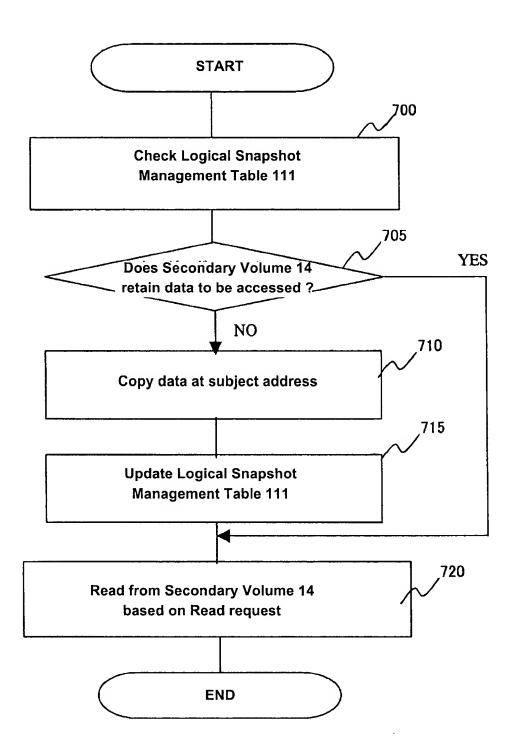
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Fig. 6



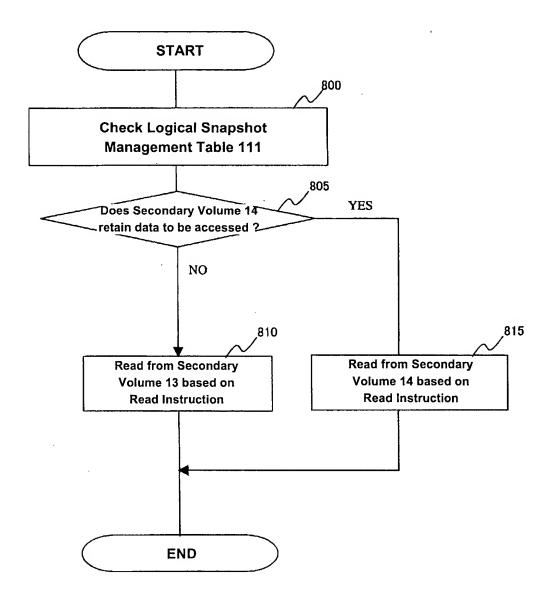
Hogan & Hartson 81940.0050 Sigeo HOMMA et al. Storage Apparatus and its Management... EV 325 216 955 US 15 Drawing Sheets; Sheet 5 of 15

Fig. 7



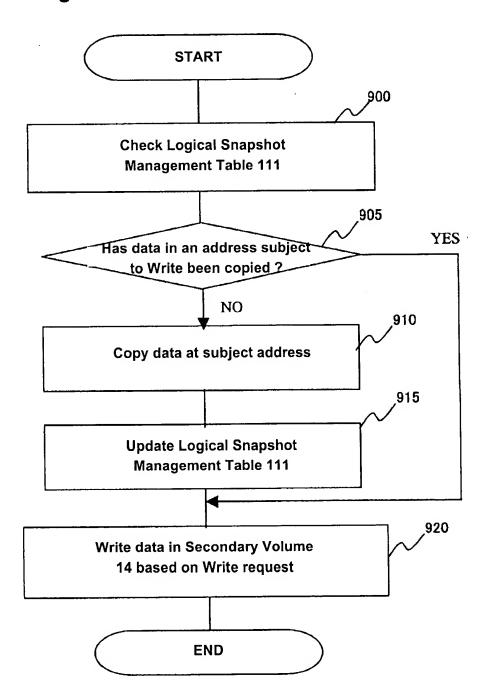
Hogan & Hartson 81940.0050 Sigeo HOMMA et al. Storage Apparatus and its Management... EV 325 216 955 US 15 Drawing Sheets; Sheet 6 of 15

Fig. 8



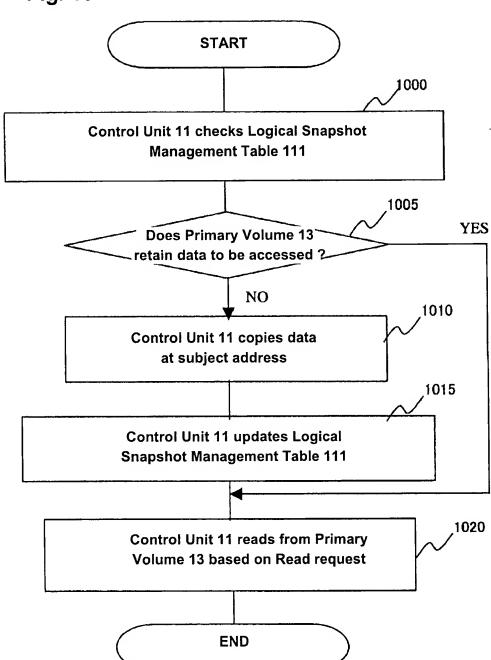
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Fig. 9



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Fig. 10



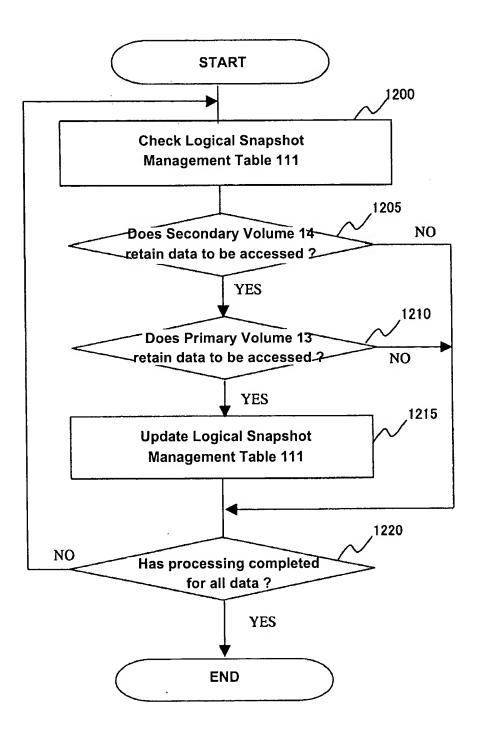
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Fig. 11

State before Execution (P, S)	State after receiving Snap command	State after receiving Restore command	
(0, 0)	(0, 1)	(1, 0)	
(0, 1)	(0, 1)	(0, 1)	
(1, 0)	(1, 0)	(1, 0)	
(1, 1)	N/A		

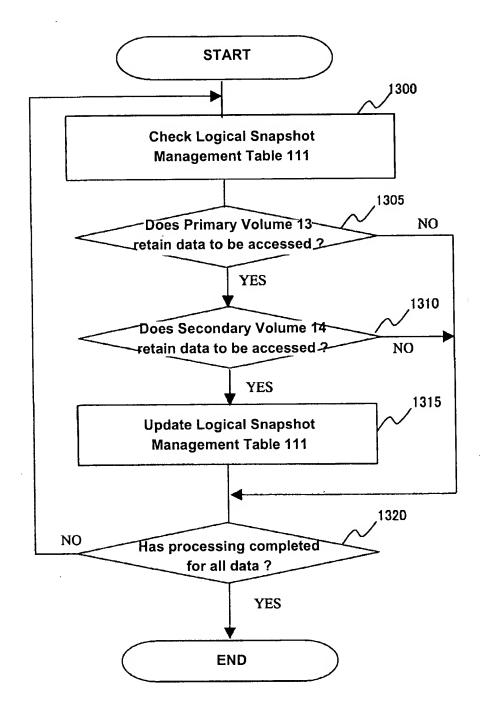
Hogan & Hartson 81940.0050 Sigeo HOMMA et al. Storage Apparatus and its Management... EV 325 216 955 US 15 Drawing Sheets; Sheet 10 of 15

Fig. 12



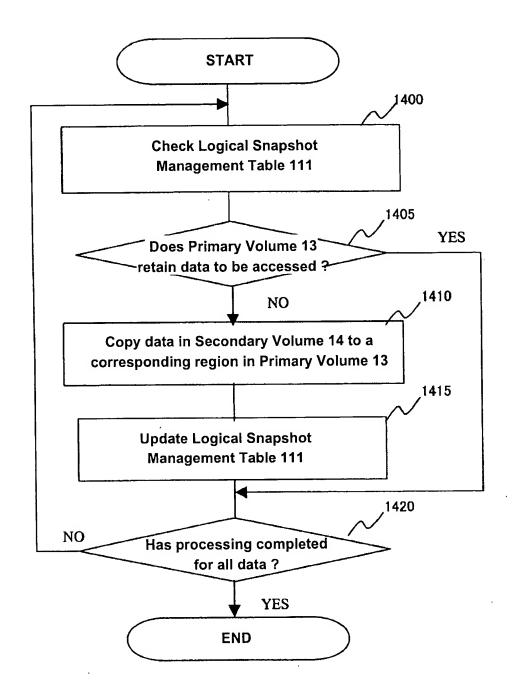
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Fig. 13



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Fig. 14



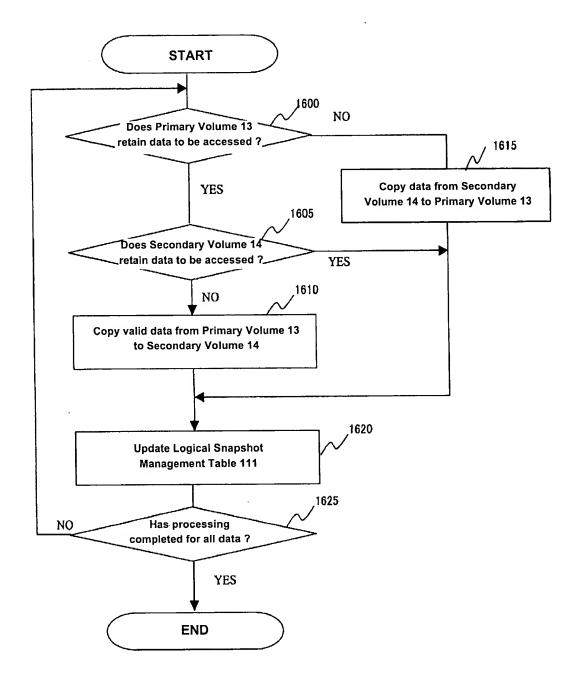
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Fig. 15

State before Execution (P, S)	State after receiving Delete command
(0, 0)	(0, 0)
(0, 1)	(0, 1)
(1, 0)	(1, 0)
(1, 1)	N/A

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Fig. 16



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Fig. 17

